

CLAIMS

WHAT IS CLAIMED IS:

1. A method of forming a synthetic material, comprising:
providing a base material for of one or more components, the base material
5 being an expandable material that is tacky at a temperature between about 0 °C and
about 80 °C; and
providing at least one substantially non-tacky surface to the base material to
form the synthetic material with the at least one substantially non-tacky surface and
at least one tacky surface.
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2. A method as in claim 1 wherein the step of providing at least one
substantially non-tacky surface includes forming a liquid admixture and applying the
liquid admixture to at least one surface of the base material for forming a coating,
the coating including the at least one substantially non-tacky surface.
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3. A method as in claim 1 wherein the step of providing at least one
substantially non-tacky surface includes applying a film to at least one surface of the
base material such that the film provides the at least one substantially non-tacky
surface.
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4. A method as in claim 2 wherein the coating includes one or more
correspondence components corresponding to the one or more components of the
base material.
- 25 5. A method as in claim 4 wherein the one or more correspondence
components have a substantially identical monomer and/or oligomer configuration
relative to the one or more components of the base material.
6. A method as in claim 5 wherein the one or more correspondence
30 components of the coating include at least one epoxy resin material.

7. A method as in claim 3 wherein the film includes one or more correspondence components corresponding to the one or more components of the base material.

5 8. A method as in claim 7 wherein the one or more correspondence components have a substantially identical monomer or oligomer configuration relative to the one or more components of the base material.

9. A method as in claim 8 wherein the one or more correspondence
10 components of the coating include at least one epoxy resin material.

10. A method as in claim 1 wherein the step of providing at least one substantially non-tacky surface includes at least partially curing a surface of the base material such that the surface of the base material become the substantially non-
15 tacky surface.

11. A method of forming a synthetic material, comprising:
providing a base material, the base material being tacky at a temperature between about 0 °C and about 80 °C;
20 providing a liquid admixture, the admixture including one or more correspondence components corresponding to one or more components of the base material and the admixture including between about 20% and about 60% by weight solvent or cosolvent wherein the correspondence components are at least partially dissolved in the solvent or cosolvent;
25 applying the admixture to at least one surface of the base material;
drying the liquid admixture to form a coating upon the base material thereby forming the synthetic material with at least one tacky surface and at least one non-tacky surface, the non-tacky surface being provided by the coating, which is non-tacky at a temperature below about 80 °C.

30 12. A method as in claim 11 wherein at least a portion of the one or more correspondence components are thermoplastics.

13. A method as in claim 11 wherein at least a portion of the one or more correspondence components are elastomers.

14. A method as in claim 11 wherein one or more correspondence
5 components comprise at least about 60% by weight of fix coating.

15. A method as in claim 11 wherein the solvent or cosolvent is selected from water, toluene, benzene, xylene, alcohol, ethanol, acetone or a combination thereof.
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16. A method as in claim 14 wherein the admixture includes between about 5% and about 50% by weight epoxy resin and the epoxy resin has an EEW between about 200 and about 300 and wherein the epoxy resin represents at least a portion of the one or more correspondence components.
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17. A method as in claim 11 further comprising contacting the tacky surface with release paper.

18. A method as in claim 11 wherein the one or more correspondence
20 components have a substantially identical monomer or oligomer configuration relative to the one or more components of the base material.

19. A method as in claim 11 wherein the one or more correspondence components include an epoxy resin that is substantially identical to an epoxy resin in
25 the base material.

20. A method of forming a synthetic material and employing the synthetic material for reinforcing or providing acoustical damping to a member of an automotive vehicle, the method comprising:
30 providing a base material primarily comprised of one or more epoxy components, the base material being tacky at a temperature between about 0 °C and about 80 °C;

providing a liquid admixture, the admixture including one or more correspondence components corresponding to the one or more epoxy components of the base material and the admixture including between about 20% and about 60% by weight solvent or cosolvent wherein the correspondence components are at least partially dissolved in the solvent or cosolvent;

applying the admixture to at least one surface of the base material;

drying the liquid admixture to form a coating upon the base material thereby forming the synthetic material with at least one tacky surface and at least one substantially non-tacky surface, the non-tacky surface being provided by the coating;

applying the synthetic material to the member of the automotive vehicle by contacting the substantially non-tacky surface of the synthetic material such that the tacky surface of the synthetic material contacts the member of the automotive vehicle.